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### (57) Abstract:

**PURPOSE:** To extend the filtering continuation time of a membrane module and to reduce the number of times of chemical washing by providing a membrane permeated liquid suction means to the upper part of a water collecting pipe and providing a back pressure washing air pressure introducing means to the lower part thereof.

**CONSTITUTION:** A membrane permeated liquid suction means comprising a water valve 6, a suction pump 7 and a flowmeter 8 is provided to the upper end of a water collecting pipe 5. A backwashing valve 10 and a compressor 11 are provided to the lower end of the water collecting pipe 5 so as to introduce back pressure washing air into the water collecting pipe 5 under pressure. By this constitution, back pressure washing air

is sent from the lower end of the water collecting pipe 5 under pressure to equally supply compressed air to respective membrane modules 2 to increase washing effect. Further, by sucking a membrane permeated liquid from the upper end of the water collecting pipe 5, air at a time of back pressure washing can be easily removed and the lowering of a permeated liquid flow rate caused by residual air can be prevented. Therefore, all of the membrane

